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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,604	06/13/2001	Yoshihiro Ishizaki	U013417-6	7019
7	590 03/21/2003			
Ladas & Parry			EXAMINER	
26 West 61st Street New York, NY 10023			PATEL, NIHIR B	
			ART UNIT	PAPER NUMBER
			3743	
			DATE MAILED: 03/21/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary Examiner Nihir Patel Art Unit Nihir Patel Art Art Unit Nihir Patel Art Unit Nihir Pa						
Examiner Nihir Patel 3743 37	•	Application No.	Applicant(s)			
Nihir Patel 3743 - The MAILING DATE of this communication appears on the cover sheet with the correspondence address → Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. If the period for reply sepoletic above is less han thing (30) days, a reply which he datutory minimum of heiry (30) days will be considered finely. If the period for reply sepoletic above is less han thing (30) days, a reply which he datutory minimum of heiry (30) days will be considered finely. If the period for reply sepoletic dature is less than thing (30) days, a reply which he datutory minimum of heiry (30) days will be considered finely. If the period for reply sepoletic dature is less than thing (30) days, a reply which he datutory minimum of heiry (30) days will be considered finely. If the period for reply sepoletic dature is less than this (30) days, and a reply which he dature is reply the limby fitted in the fitted reply and will reply with the dature of the communication. If the period for reply sepoletic dature is less than this (30) days are limbed in the period of the communication. A pright reply received by the Office litter than three markings and will have a reply delivery and will have a reply the limby fitted in the period of the communication. Status Status Status Status Claim (s) 1-20 is/are pending in the application. 4) Claim (s) 1-22 is/are pending in the application. 4) Claim (s) 1-22 is/are pending in the application. 4) Claim (s) 1-22 is/are pending in the application. 5) Claim (s) 1-22 is/are pending in the application. 5) Claim (s) 1-23 is/are allowed. 6) Claim (s) 1-23 is/are allowed. 6) Claim (s) 1-24 is/are objected to by the Examiner. Application Papers 9) The data of the priod the pri		09/880,604	ISHIZAKI, YOSHIHIRO			
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DETAILED ACTION

Election/Restrictions

1. Applicant's election of group II (claims 1, 5-11, and 15) is acknowledged.

2. Applicant argues that figures 2 and 4 are related to embodiments of manufacturing processes. Therefore the species restriction should not apply to the elected apparatus claims and should be withdrawn. The examiner has found the applicant's arguments to be persuasive and the species restriction is withdrawn.

Claims 2-4, 12-14, and 16-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to method of manufacturing, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

3. Claim 7 contains the trademark/trade name TEFLON and KEVLAR. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe material used to design a holding base and, accordingly, the identification/description is indefinite.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is insufficient antecedent basis for limitations "a refrigerator".

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

The intended use statements are not given any patentable weight in this instance, for example "for a regenerator".

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spokoyny et al. US Patent No. 5,323,842 in view of Sellin US Patent No. 3,431,082.

Spokoyny discloses the applicant's invention as claimed with the exception of providing numerous granules such as balls, ships, and fine particles having a relatively uniform size which are made of one or a plurality of heat storing materials.

Sellin discloses a temperature-stabilized heat exchanger that dose provide numerous granules such as balls, ships, and fine particles having a relatively uniform size which are made of one or a plurality of heat storing materials (see figures 5 through 8 and column 5 lines 3-8).

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Therefore it would be obvious to modify Spokoyny's invention by providing numerous granules such as balls, ships, and fine particles having a relatively uniform size which are made of one or a plurality of heat storing materials in order to make it easier to replace the granules in case it malfunctions during use.

Referring to claim 11, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

The intended use statements are not given any patentable weight in this instance, for example "for a pulse-tube refrigerator".

Claim 5, 7, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spokoyny et al. US Patent No. 5,323,842 in view of Scarlata US Patent No. 4,355,627.

Referring to claim 5, Spokoyny discloses the applicant's invention as claimed with the exception of stating the type of material used to design the granules.

Scarlata discloses thermal storage system that does state the type of material used to design the granules (see column 4 lines 19-30). It is obvious to one in the ordinary skill of the art that well known material like copper is a heat conductive material and can be used make the granules required in Spokoyny's invention in order to obtain better heat transfer.

The applicant also states that the granules size range from 40 to 800 μm . Since the applicant does not state the criticality of granules size it is simply a matter of design choice.

Referring to claims 7, 8, and 9, Spokoyny discloses the applicant's invention as claimed with the exception of stating that the holding base is designed from a fiber selected from the group consisting of paraaramid fiber, high tenacity polyarylate fiber, PBO

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fiber, polyethylene fiber, TEFLON fiber, polyester fiber, KEVLAR fiber, natural fiber, and glass fiber, and has so small a mesh that the granules do not pass through.

Scarlata discloses thermal storage system that does state that the holding base is designed from a fiber selected from a fiber selected from the group consisting of paraaramid fiber, high tenacity polyarylate fiber, PBO fiber, polyethylene fiber, TEFLON fiber, polyester fiber, KEVLAR fiber, natural fiber, and glass fiber, and has so small a mesh that the granules do not pass through (see column 8 lines 1-10). Therefore it would have been obvious to modify Spokoyny's invention by using a fiber selected from a fiber selected from the group consisting of paraaramid fiber, high tenacity polyarylate fiber, PBO fiber, polyethylene fiber, TEFLON fiber, polyester fiber, KEVLAR fiber, natural fiber, and glass fiber, and has so small a mesh that the granules do not pass through in order to provide a strong hold on the granules.

The applicant also states that the holding base is woven cloth having a thickness ranging from 10 to 100 μm . Since the applicant does not state the criticality of the cloth thickness, it is simply a matter of design choice.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over combined Spokoyny et al. US Patent No. 5,323,842 in view of Lindner et al. US Patent No. 5,088,548.

Spokoyny discloses the applicant's invention as claimed with the exception of stating that granules are made of one or more of an alloy, which has high specific heat at low temperatures.

Lindner discloses a heat accumulator with expansion recess that does use alloys, which has high specific heat at low temperatures. Therefore it would be obvious to modify Spokoyny's invention by providing alloys, which has high specific heat at low temperatures in order to provide better heat transfer.

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The applicant also states that the granules size range from 40 to 800 μm . Since the applicant does not state the criticality of granules size it is simply a matter of design choice.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's 45. disclosure.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Nihir Patel whose telephone number is (703) 306-3463. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful the examiner supervisor Henry Bennett can be reached at (703) 308-0101.

NP

February 6, 2003

Supervisory Patent Examiner Group 3700